Abstract of the Disclosure

A mixing shaft (1) is disclosed, used in an assembly (2) of a unit for thorough mixing and comminuting of food products. The mixing shaft (1) comprises a steel core (3), surrounded by a one-piece plastic coating (6) with mixing elements (4). In order to retain the plastic coating (6) on the steel core (3) of the mixing shaft (1), the surface of the steel core (3) has a structured embodiment. The plastic coating (6) is applied to the mixing shaft (1) by means of a particular isostatic pressurized application method.